

# Missouri Department of Health and Senior Services

## Biological, Chemical and Nuclear Preparedness

### FUNDING

#### CDC Bioterrorism Grant:

**\$16.3 million** (2005-06) - which includes **\$1.1 million** dedicated to Cities Readiness Initiative

#### Pandemic Influenza Planning:

**\$1.89 million** (2005-06)

#### HRSA Hospital Preparedness Grant:

**\$ 9.1 million** (2005-06)

#### TOTAL FEDERAL BT PREPAREDNESS FUNDING:

**\$25.4 million** (2005-06)

#### 2005-06 Grant Period:

Sept. 1, 2005 - August 30, 2006



### FOR MORE INFORMATION:

#### Missouri Department of Health and Senior Services

Center for Emergency Response and Terrorism

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**800-392-0272**

(24 hours a day, 7 days a week)

## UPDATE

February 2006

*Over the past four years, the Missouri Department of Health and Senior Services (DHSS), working with federal and local partners, improved the state's ability to respond to a bioterrorist attack or public health emergency. The following key accomplishments highlight the department's progress in strengthening Missouri's preparedness capacity and describe how the dollars were spent on homeland security.*

*According to the Centers for Disease Control and Prevention's (CDC) and Health Resources and Services Administration's (HRSA) cooperative agreements, all funding must be used to enhance homeland security issues in the state and cannot be used for supplanting any current federal, state or local expenditures or for programs that existed before the dollars were received.*

## KEY ACCOMPLISHMENTS & IMPACTS

### A. CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) COOPERATIVE AGREEMENT (Public Health Preparedness and Response for Bioterrorism Grant):

The Missouri Department of Health and Senior Services (DHSS) received a federal grant from CDC for planning; surveillance and epidemiology; laboratory capacity; communications and public information; and education and training. The funding was used to develop and implement the following capabilities:

#### 1. DEPARTMENT RESPONSE

- ❑ DHSS enhanced its Center for Emergency Response and Terrorism and added state laboratory, epidemiology and medical capacity. The Center is responsible for coordinating regional and state planning and assuring systems are in place for public health emergencies and disasters.
- ❑ Missouri continues to strengthen local and regional systems through 32 contracts with local public health agencies (LPHAs) for 33 local planners, 29 epidemiology specialists, seven public information officers, and three volunteer coordinators at the local level.

*(continued)*



These local public health staff are located throughout the state and are available around-the-clock to assume their roles and responsibilities during an emergency.

All local public health agencies received funding for purchasing equipment and providing staff education and training. Personal protective equipment (PPE), which included N-95 masks and gowns, was purchased for public health staff to use in the event of a bioterrorist attack.

- ❑ The Department Situation Room (DSR) is staffed by a duty officer **24 hours a day, 7 days a week**, and monitors the day-to-day emergency preparedness of the state. A toll-free number **(800-392-0272)** is available around-the-clock for emergencies or disease reporting.
- ❑ The DSR will serve as a command center during an emergency. Trained DHSS professionals will operate workstations for the commander, co-commander, laboratory, disease investigation and surveillance, operations, mass care, public information, community needs, computer information systems, timeline management, duty officer, and support. Six teams for the DSR and six teams for the State Emergency Operations Center (SEOC) are trained and ready to respond immediately.
- ❑ The department purchased needed equipment and supplies for back-up communications systems to continue critical operations during an event. The Mobile Command Center and public information mobile trailer are now equipped to set up a command and control center anywhere in the state.



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## **2. COMMUNICATIONS**

- ❑ DHSS public information staff have been trained on emergency duties and are assigned to response teams. They work closely with seven regional public information officers, who are located in the metropolitan areas of Kansas City, St. Louis, Springfield and Columbia.
- ❑ The Health Alert Network will be used to rapidly receive and disperse communications among public health partners at the local, regional, state and federal levels.
- ❑ A computer-based Emergency Notification System is available to quickly call and notify DHSS staff of their assignments.

- ❑ The department is prepared to quickly expand its hotline capabilities by 22 additional lines, with trained DHSS staff and nurses available through a 24/7 call-down list. In addition, staff operating the eight DHSS elderly information lines will field calls.
- ❑ Web site technicians are available to update web site information on a 24/7 basis.
- ❑ DHSS has a contract in place with a communications firm to provide immediate translation of messages and materials for non-English speaking residents.

### 3. DISEASE CONTROL

- ❑ The DHSS enhanced its rapid disease investigation capabilities by hiring medical epidemiologists, regional senior epidemiologists and local epidemiology specialists. A public health team can go on-site to investigate any suspicious illness or disease within an hour of its reporting.

These state and local public health staff investigate and respond to numerous diseases, including West Nile Virus, SARS potential cases, meningitis cases and Norwalk-like illnesses. Rapid responses to naturally occurring disease outbreaks such as these provide the groundwork for the skills and systems that would be deployed in bioterrorist events. Tabletop exercises testing capability and capacity in response to an intentional contamination of the food supply were held in the major population centers around the state in 2005 to continue improving communications and response.

- ❑ A pilot project is in progress in Kansas City and St. Louis to place communicable disease staff as liaisons in hospitals to improve disease surveillance, partnerships with the medical community, and response times to disease outbreaks.
- ❑ Of major concern to DHSS during 2005 was the continuing spread of the H5N1 Avian influenza virus and the possibility of further mutation of this novel virus into a form that can be spread easily person to person. Much work, therefore, took place in preparation for avian and/or pandemic influenza, with a complete upgrade of the state Pandemic Influenza Plan and the formation of a Pandemic Steering Committee and associated subcommittees under the auspices of the Governor's Homeland Security Council for DHSS to lead the state in readying for pandemic influenza.

#### MISSION

The Center for Emergency Response and Terrorism protects the lives and health of all Missourians from natural and man-made public health threats through prevention, early detection, and a rapid, coordinated response to emergencies and disasters.

#### GUIDING PRINCIPLES

- ◆ Capacity to respond
- ◆ Immediate, effective and accurate communication
- ◆ A well-informed public
- ◆ Integrated regional response
- ◆ Utilization of existing emergency response systems
- ◆ Tax dollars expended effectively

- ❑ The Missouri State Public Health Laboratory has developed the capacity to respond to most Category A (anthrax, plague, tularemia and orthopox virus) and most Category B biological agents. The laboratory has the capacity to analyze clinical and food samples for various chemical warfare agents including toxic elements, cyanide, and radioisotopes. Using rapid testing technologies has reduced the time it takes to identify these critical agents from 3 days to 2-4 hours. The state public health laboratory intends to expand its capability in chemical terrorism testing by developing methodology to quantify the presence of nerve agents, nitrogen mustard, ricin poison and various metals in 2006. A statewide courier service now ensures that specimens from every county throughout the state arrive at the laboratory each morning.
- ❑ Disease-reporting systems are used by local public health agencies, hospitals, schools, health care providers and large employers to constantly monitor the health of the public, so an unusual disease or an unusual number of cases of a disease are identified quickly. An electronic laboratory reporting system is used to provide disease reports from hospital laboratories within hours.
- ❑ In conjunction with the Missouri Veterinary Medical Association and the Missouri Department of Agriculture, DHSS developed and distributed over 2,000 copies of a Veterinarian Emergency Response Manual during the year to all veterinarians and local public health agencies in the state. This manual contains Missouri-specific response protocols in the event of a biological event or natural disease outbreak involving an animal or zoonotic disease, and background information on the diseases of greatest concern. DHSS recognizes that emerging zoonotic diseases or bioterrorism agents with zoonotic potential are one of the greatest threats to the health of Missouri's citizens and economy, and the department is working very hard with federal and other state agencies to improve preparations and response capability.

#### 4. EDUCATION AND TRAINING

- ❑ A statewide education program called "Ready in 3" was developed to inform Missouri residents on what they can do at home, school and work. State and local public health agencies are working with schools, retailers and community groups to educate families on steps they can take to prepare. A family safety guide, brochures, fact sheets, videos, posters, presentation materials and newsletter articles are available for residents, community groups and businesses. More than 1.5 million copies of the family safety guide have been distributed since the program's launch in March 2004. All

#### PUBLIC HEALTH'S ROLE

- ◆ Activate and maintain High Alert Disease Surveillance
- ◆ Assure public health investigation response
- ◆ Assure rapid medical care on a large scale
- ◆ Assure lifesaving medical supplies (SNS)
- ◆ Prevent secondary transmission
- ◆ Provide public information
- ◆ Provide ongoing education and training
- ◆ Assure rapid chemical and nuclear response
- ◆ Assure management of fatalities
- ◆ Assure immediate communications between experts, supply sources, and on-site managers

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materials are available on the department's web site at [www.dhss.mo.gov](http://www.dhss.mo.gov); many are available in multiple languages.

- ❑ Risk communication/media trainings have been provided to state and local public health employees and hospital communications staff each year, with a total of 598 participants. A monthly newsletter keeps key state and local leaders informed of emergency response activities.
- ❑ Training state and local public health employees and health care staff is vital to being prepared and has been a priority for the state health department. Missouri continues to hold trainings and mock exercises across the state to help prepare members of the emergency response teams. The department also provides distance learning programming.
- ❑ Three regional volunteer coordinators are working on recruiting and training local volunteers who would assist public health with disaster response.
- ❑ In 2005 the Missouri State Public Health Laboratory offered many training opportunities to the sentinel laboratories of the Missouri Laboratory Response Network. The Laboratory Packaging and Shipping course was offered regionally throughout the state, with more than 200 individuals trained using a train-the-trainer approach. In addition, the Interpretation of Gram Stains course prepared sentinel laboratories for identifying biological agents. Additional training programs will be offered in 2006 to address hospital laboratory needs.
- ❑ The DHSS Emergency Response Speaker's Bureau is designed to connect public health threat experts, infectious diseases investigators, bioterrorism emergency authorities, and medical professionals with groups seeking subject matter specialists to address their organization's meetings. The goal is to provide essential information to medical professionals and citizens so that they are better equipped to respond during times of crisis. To request a speaker or for more information, go to [www.dhss.mo.gov/BT\\_Response/SpeakersBureau.htm](http://www.dhss.mo.gov/BT_Response/SpeakersBureau.htm)
- ❑ DHSS, in partnership with the Missouri Veterinary Medical Association and the Missouri Department of Agriculture, hosted the Veterinary Emergency Awareness Training (VEAT) in October 2005. The training was broadcast live to 10 locations across the state, reaching more than 250 local veterinarians, veterinary staff and local public health epidemiology staff. Over 200 DVD copies of the training have been requested.





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## 5. RESPONSE PLANNING

- ❑ All 114 local public health agencies and the regional response planners developed integrated regional response plans, which are tested through exercises and drills. In addition, agencies are including communications plans and plans for handling mass casualties and working on mutual aid agreements with neighboring local public health agencies and hospitals.
- ❑ Needs assessments were conducted to determine planning, surveillance, epidemiology, community education, public information, and hospital needs. In addition, the assessments addressed physicians and public health professionals education and training needs
- ❑ Three regional volunteer training coordinators are assisting in the development of volunteer annexes to the local and regional plans. As a result of the August 2005 Public Health Volunteer Symposium, a Public Health Volunteer Advisory Committee has been established and a statewide public health volunteer system is being set up.

## 6. STRATEGIC NATIONAL STOCKPILE (SNS)

- ❑ Federal, state and local partners are working together to ensure the Strategic National Stockpile (SNS), a supply of medications, antidotes, and medical supplies, can be disseminated in a quick and efficient manner to every resident throughout the state. DHSS staff have been trained to set up and operate the Receiving, Staging and Storage (RSS) site, where SNS medications would first arrive and be repackaged for dispensing sites.
- ❑ The 114 local public health agencies have plans in place and are capable of opening and staffing a dispensing site within eight hours.
- ❑ In June 2004, a full-scale bi-state exercise was conducted in the Kansas City metro area, which included five local public health agencies in Missouri and two in Kansas, as well as 19 hospitals in the Kansas City area. This was the first bi-state SNS exercise to occur in the nation. In August 2004, the exercise was extended to Southeast Missouri, with five local public health agencies and one hospital participated. In June 2005, Missouri and Illinois conducted a full-scale bi-state exercise in St. Louis with nine local public health agencies and three hospitals. Numerous regional exercises also test the local SNS plans. A full-scale exercise is planned in Springfield in June 2006.



*Missouri is one of seven states that achieved the “green” rating on its Strategic National Stockpile preparedness efforts. Full-scale bi-state exercises were held in Kansas City in 2004 and in St. Louis in 2005.*

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- ❑ All 114 local public health agencies received training for the on-line computer program that will be used during a natural or deliberate event to order supplies from the SNS and to track inventory.

## **7. CITIES READINESS INITIATIVE (CRI)**

- ❑ The Cities Readiness Initiative (CRI) was developed for the possible distribution of an aerosolized biological agent over a wide geographic urban area, necessitating the rapid distribution of initial doses of prophylactic antibiotics to very large numbers of exposed persons. St. Louis and Kansas City were chosen by CDC as two of 36 cities that must be prepared for such a scenario. Both are working on plans to quickly dispense antibiotics to their regional areas, which will include public health, major employer and hospital dispensing capabilities.

## **8. SMALLPOX PREPAREDNESS PROGRAM**

- ❑ In 2003, Missouri public health agencies and hospitals established teams of more than 1,200 public health and medical professionals who are prepared to respond in the event of a smallpox outbreak. The smallpox teams have been vaccinated and could be the first to investigate, evaluate, and treat initial suspected case(s) of smallpox and initiate measures to control the outbreak.

In 2004, Missouri public health agencies educated approximately 4,000 first responders, including fire fighters, police officers, and emergency medical technicians (EMTs), about smallpox and smallpox vaccination. In addition, 137 individuals in high-exposure first responder positions were vaccinated. These first responders are better prepared to continue serving their communities in the event of an outbreak, will recognize the disease before it spreads, and will stand shoulder to shoulder with public health in protecting the health and safety of all Missourians.

In 2005, DHSS in collaboration with the Columbia-Boone County Health Department, maintained the readiness of the smallpox response teams by conducting a smallpox vaccination clinic. The clinic enabled a number of healthcare, laboratory, and public health staff new to the teams to obtain vaccination.

## **9. SPECIAL NEEDS POPULATION**

Comprehensive and thoughtful planning is the key to effective response to persons with special needs during an emergency event, especially large-scale events. To provide information and resources to assist in planning for these populations, the Missouri Disaster

Recovery Partnership formed a Special Needs Populations Task Force lead by DHSS and the Division of Vocational Rehabilitation and supported by the State Emergency Management Agency. The task force has involved many public, private and consumer partners in its planning process. The task force has developed Annex X for the State Emergency Operations plan; standard operating guides for DHSS and the Division of Vocational Rehabilitation; and a local planning template. Three CD resource toolkits are under development including, Seniors and People with Disabilities; Children and Youth; Culturally Competent Disaster Planning and Response. These toolkits along with the local planning template and technical assistance will be available to local communities to assist them with their planning efforts.

## 10. COLLABORATIVE EFFORTS AND PARTNERSHIPS

- ❑ Partnerships have been strengthened among local public health agencies, hospitals, law enforcement, fire department, emergency medical services, pharmacies, schools, service organizations and private businesses. Prior to this, many agencies completed their emergency planning by themselves, and now all the key players are sitting down at the same table. The state health department also hosts a statewide conference each year to bring together representatives from these entities.
- ❑ Missouri hosted three interstate bioterrorism meetings for its eight bordering states in Summer 2003 to discuss coordinated efforts for emergency response preparedness. Another meeting was held in November 2004 to review the issues identified and to discuss future multi-state plans. The SNS full-scale exercises have included Kansas and Illinois, and will include Arkansas in 2006. In addition, DHSS staff continues to collaborate with their counterparts in the bordering states.
- ❑ To better coordinate and protect public health and the environment in the event of a Weapons of Mass Destruction incident, DHSS and the Department of Natural Resources are entering into a memorandum of agreement detailing communications, response roles, information sharing, and public informational releases.
- ❑ DHSS is working with the Missouri School Boards' Association to develop a web-based planning template for schools, which includes tutorials, on-line courses, and research library. In early 2006, meetings were held for educators around the state.





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**B. HEALTH RESOURCES AND SERVICES ADMINISTRATION (HRSA) COOPERATIVE AGREEMENT**  
(Bioterrorism - Hospital Preparedness Grant)

The \$9.1 million HRSA grant received this year will continue to support hospital preparedness in six HRSA priority areas including administration; surge capacity; emergency medical services; linkages to public health departments; education and preparedness training; and bioterrorism preparedness exercises.

- ❑ The funding is being used to upgrade the state's health care system through enhanced disease reporting systems, personal protective equipment, decontamination equipment, and communication systems. This funding will also enable hospitals throughout the state to be better prepared to handle epidemics of rare diseases, exposures to chemical toxins and mass casualties.
- ❑ Emphasis will continue to be placed on meeting the surge capacity HRSA criteria in St. Louis; Kansas City; Springfield; Columbia/ Jefferson City and the southeast Missouri region. Surge capacity support trailers containing equipment and supplies will also be placed in each of the nine designated regions in the state.

**1. HEALTH CARE PERSONNEL CAPACITY DURING EMERGENCIES**

- ❑ Missouri is one of 10 pilot sites in the nation to establish an Emergency System for the Advanced Registration of Volunteer Health Professionals (ESAR-VHP). DHSS is working with the Division of Professional Registration and the Board of Nursing to develop a registry of health care professionals that may be available to volunteer in a disaster or other state or national emergency situation. The registry, called the Licensed-professional Emergency and Disaster Registry, or LEAD-R, will include information about the volunteers such as additional contact information, length of time the volunteer could be gone, and ability to volunteer out-of-state. Registered nurses were encouraged to register electronically as volunteers in April 2005. As of August 2005, over 1,200 nurses submitted their information to LEAD-R; and we plan to expand the program to physicians and licensed practical nurses in 2006.
- ❑ DHSS is working closely with the Missouri Hospital Association to provide competency-based education and training for health care professionals throughout the state. This will include identifying and assisting trainers in each region, and then incorporating the new skills during exercises and drills.

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- ❑ Funding is being used to enhance Disaster Medical Assistance Teams in the St. Louis and Springfield areas and to organize a team in the Kansas City area.
  - ❑ DHSS is collaborating with the Department of Mental Health to enhance the networking capacity and training of health care professionals to be able to recognize, treat and coordinate care related to behavioral health consequences of bioterrorism and other public health emergencies. In addition to the trainings, these staff will be participating in exercises and drills and integrating behavioral health components into their hospital preparedness plans.

## **2. HOSPITAL TRACKING SYSTEM (EMSystem)**

- ❑ A new hospital tracking system, EMSystem, detects possible outbreaks by monitoring the number of admissions and ambulance diversions at hospitals. The system provides a linkage for hospitals to obtain instant messages and alerts. EMSystem now offers a patient tracking solution, EMTrack, which became available in 2005, and a new feature is being pursued for credentialing nurses and physicians.

## **3. CHEMPACK**

- ❑ To be better prepared for the potential use of chemical weapons, CDC developed a program called CHEMPACK, which will result in the 'forward' placing of large quantities of antidotes to chemical exposure throughout the nation. The nerve agent antidotes will be rapidly available to state and local emergency responders whose local resources have been exhausted. DHSS has established partnerships with hospitals, drug warehouses and first responders for the storage of these CHEMPACK caches at strategic locations throughout the state. CDC staff has visited and approved each site, and placement of the caches should be completed in Spring 2006.

## **4. TELEHEALTH**

- ❑ The Telehealth project is available to digitally link Missouri hospitals, community health centers and public health agencies together via a videoconferencing/communications network that will support the delivery of disaster preparedness communications and educational programming. The system provides a mechanism to remotely provide clinical services during disasters, and will be used to link to hospitals, CDC, and other entities in other states.

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## 5. COLLABORATIVE EFFORTS AND PARTNERSHIPS

- ❑ DHSS has contracts with the Missouri Hospital Association and Missouri Primary Care Association to assure a coordinated and integrated response system.
- ❑ Through the joint efforts of DHSS and the Missouri Chapter of American Academy of Pediatrics, a Pediatric Advisory Committee was formed to actively engage pediatric professionals in emergency planning.